



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0111; Directorate Identifier 2011-NM-089-AD; Amendment 39-17407; AD 2013-07-03]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Airbus Model A330-200, A330-200 Freighter, A330-300, A340-200, and A340-300 series airplanes; and Model A340-541 airplanes and Model A340-642 airplanes. This AD was prompted by reports of cracks in the bogie pivot pin caused by material heating due to friction between the bogie pivot pin and bush, leading to chrome detachment and chrome dragging on the bogie pivot pin. This AD requires repetitive detailed inspections for degradation of the bogie pivot pins and for any cracks and damage of the pivot pin bushes of the main and central landing gear; a magnetic particle inspection of the affected bogie pivot pins for corrosion and base metal cracks; and repairing or replacing bogie pivot pins and pivot pin bushes, if necessary. We are issuing this AD to detect and correct cracks and damage to the main and central landing gear, which could result in the collapse of the landing gear and adversely affect the airplane's continued safe flight and landing.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That SNPRM was published in the Federal Register on September 7, 2012 (77 FR 55163). That SNPRM proposed to correct an unsafe condition for the specified products. The Mandatory Continuing Airworthiness Information (MCAI) states:

During removals of A330/340 Main Landing Gear (MLG) Bogie Beams and A340-500/600 Center Landing Gear (CLG) Bogie Beams, cracks in the bogie pivot pin were found.

Investigations indicated that these findings were the result of material heating, caused by friction between bogie pivot pin and bush, leading to chrome detachment and stress corrosion cracking.

This condition, if not detected and corrected, could lead to collapse of the main or center landing gear, possibly resulting in damage to the aeroplane and/or injury to occupants.

As a precautionary measure, EASA [European Aviation Safety Agency] issued AD 2011-0040 to require a one-time [detailed] inspection of the MLG (all types of A330 and A340 aeroplanes) and CLG (A340-500/600 aeroplanes only) to detect degradation or cracking of the bogie pivot pin [and to detect cracks and damage of the bushes], as applicable to aeroplane model, and the reporting of inspections results.

Following issuance of EASA AD 2011-0040, several operators reported finding chrome detachment or chrome dragging on bogie pivot pin. New cases of cracks were also reported. It has been confirmed as well that, due to similar design, the enhanced MLG bogie pivot pin (Airbus modification 54500) could also be affected by this condition.

Prompted by these findings, Airbus have developed an inspection programme consisting of repetitive inspections of the bogie pivot pin and applicable corrective actions.

For the reasons described above, this [EASA] AD, which supersedes EASA AD 2011-0040 and extends the applicability to all A330 and A340 aeroplanes, requires accomplishment of repetitive inspections of the MLG and CLG (for A340-500 and A340-600 aeroplanes) bogie pivot pins and pivot pin bushes, and corrective actions, depending on findings.

Required actions also include, for certain airplanes, a magnetic particle inspection of the bogie pivot pin for corrosion and base metal cracks. The corrective actions include

replacing any cracked or damaged pivot pin bush with a new or serviceable pivot pin bush, and replacing any corroded or cracked bogie pin with a new bogie pin. You may obtain further information by examining the MCAI in the AD docket.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We have considered the comments received.

### **Request to Change the Compliance Time**

Delta Air Lines, Inc. (DAL) requested that the initial compliance time in paragraph (g) of the SNPRM (77 FR 55163, September 7, 2012) be changed from "... first flight of the airplane," to "... first flight of the new or overhauled landing gear," in two locations in that paragraph. The commenter did not provide rationale for this request.

We disagree with DAL's request. Our compliance time coincides with EASA AD 2012-0053, dated March 30, 2012, which specifically states, "Accomplishment of an overhaul of the landing gear does not substitute the accomplishment of an inspection as required by paragraph (1) of this [EASA] AD." The inspections required by this final rule are not equivalent to what is accomplished during landing gear overhaul. However, if the inspections required by this final rule are positively verified to have been accomplished during overhaul, the overhaul date may be used to determine the next repetitive inspection date. We have not changed this final rule in this regard.

## **Conclusion**

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed—except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the SNPRM (77 FR 55163, September 7, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM (77 FR 55163, September 7, 2012).

## **Costs of Compliance**

We estimate that this AD will affect 29 products of U.S. registry. We also estimate that it will take about 22 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$54,230, or \$1,870 per product.

In addition, we estimate that any necessary follow-on actions would take about 6 work-hours and require parts costing \$21,222, for a cost of \$21,732 per product. We have no way of determining the number of products that may need these actions.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the SNPRM (77 FR 55163, September 7, 2012), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:

**2013-07-03 Airbus:** Amendment 39-17407. Docket No. FAA-2012-0111; Directorate Identifier 2011-NM-089-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Airbus Model A330-201, -202, -203, -223, -243, -223F, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; Model A340-211, -212, -213, -311, -312, and -313 airplanes; and Model A340-541 and Model A340-642 airplanes; certificated in any category; all manufacturer serial numbers.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing gear.

**(e) Reason**

This AD was prompted by reports of cracks in the bogie pivot pin caused by material heating due to friction between the bogie pivot pin and bush, leading to chrome detachment and chrome dragging on the bogie pivot pin. We are issuing this AD to detect and correct cracks and damage to the main and central landing gear, which could result in the collapse of the landing gear and adversely affect the airplane's continued safe flight and landing.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.



**(g) Detailed Inspection**

Within 26 months after the effective date of this AD or 26 months after the first flight of the airplane, whichever occurs later, but no earlier than 12 months after the first flight of the airplane: Do a detailed inspection for degradation (i.e., loss of chromium plate, loose chromium, sharp edges) of the bogie pivot pins and for any cracks and damage of the pivot pin bushes of the main landing gear, and, as applicable, the central landing gear, in accordance with the Accomplishment Instructions of the applicable service bulletin specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD. Repeat the inspection thereafter at intervals not to exceed 26 months. Accomplishment of an overhaul of the landing gear does not substitute the accomplishment of the inspection as required by this paragraph.

(1) Airbus Mandatory Service Bulletin A330-32-3240, Revision 02, including Appendices 01 and 02, dated December 2, 2011 (for Model A330-200 series airplanes, Model A330-200 Freighter series airplanes, and Model A330-300 series airplanes).

(2) Airbus Mandatory Service Bulletin A340-32-4281, Revision 01, including Appendices 01 and 02, dated December 2, 2011 (for Model A340-200 series airplanes and Model A340-300 series airplanes).

(3) Airbus Mandatory Service Bulletin A340-32-5096, Revision 01, including Appendices 01 and 02, dated December 2, 2011 (for Model A340-541 airplanes and Model A340-642 airplanes).

**(h) Corrective Action for any Pivot Pin Bush Found Cracked or Damaged**

If, during any inspection required by paragraph (g) of this AD, any pivot pin bush is found cracked or damaged: Before further flight, repair or replace the pivot pin bush with a new or serviceable pivot pin bush, in accordance with the Accomplishment Instructions of the applicable service bulletin specified paragraph (h)(1), (h)(2), or (h)(3) of this AD.

(1) Airbus Mandatory Service Bulletin A330-32-3240, Revision 02, including Appendices 01 and 02, dated December 2, 2011 (for Model A330-200 series airplanes, Model A330-200 Freighter series airplanes, and Model A330-300 series airplanes).

(2) Airbus Mandatory Service Bulletin A340-32-4281, Revision 01, including Appendices 01 and 02, dated December 2, 2011 (for Model A340-200 series airplanes and Model A340-300 series airplanes).

(3) Airbus Mandatory Service Bulletin A340-32-5096, Revision 01, including Appendices 01 and 02, dated December 2, 2011 (for Model A340-541 airplanes and Model A340-642 airplanes).

**(i) Corrective Action for any Bogie Pivot Pin Found with Degraded Chrome Plating**

If, during any inspection required by paragraph (g) of this AD, degraded chrome plating on any bogie pivot pin is found: Before further flight, do a non-destructive test (magnetic particle inspection) of the affected bogie pivot pin for corrosion and base metal cracks, in accordance with the Accomplishment Instructions of the applicable service bulletin specified paragraph (i)(1), (i)(2), or (i)(3) of this AD.

(1) Airbus Mandatory Service Bulletin A330-32-3240, Revision 02, including Appendices 01 and 02, dated December 2, 2011 (for Model A330-200 series airplanes, Model A330-200 Freighter series airplanes, and Model A330-300 series airplanes).

(2) Airbus Mandatory Service Bulletin A340-32-4281, Revision 01, including Appendices 01 and 02, dated December 2, 2011 (for Model A340-200 series airplanes and Model A340-300 series airplanes).

(3) Airbus Mandatory Service Bulletin A340-32-5096, Revision 01, including Appendices 01 and 02, dated December 2, 2011 (for Model A340-541 airplanes and Model A340-642 airplanes).

**(j) Corrective Action for any Bogie Pivot Pin Found Corroded or Found with Cracked Base Metal**

If, during the non-destructive test (magnetic particle inspection) specified in paragraph (i) of this AD, the bogie pivot pin is found corroded or the base metal is found cracked: Before further flight, repair or replace the bogie pin with a new or serviceable bogie pin, in accordance with the Accomplishment Instructions of the applicable service bulletin specified paragraph (j)(1), (j)(2), or (j)(3) of this AD.

(1) Airbus Mandatory Service Bulletin A330-32-3240, Revision 02, including Appendices 01 and 02, dated December 2, 2011 (for Model A330-200 series airplanes, Model A330-200 Freighter series airplanes, and Model A330-300 series airplanes).

(2) Airbus Mandatory Service Bulletin A340-32-4281, Revision 01, including Appendices 01 and 02, dated December 2, 2011 (for Model A340-200 series airplanes and Model A340-300 series airplanes).

(3) Airbus Mandatory Service Bulletin A340-32-5096, Revision 01, including Appendices 01 and 02, dated December 2, 2011 (for Model A340-541 airplanes and Model A340-642 airplanes).

**(k) No Terminating Action**

Accomplishment of the corrective actions required by paragraphs (h) and (j) of this AD does not terminate the repetitive inspections required by paragraph (g) of this AD.

**(l) Reporting Requirement**

Submit a one-time report of the findings (both positive and negative) of the inspections required by paragraphs (g) and (i) of this AD to Airbus, Customer Services Directorate, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex France, ATTN: SDC32 Technical Data and Documentation Services; fax (+33) 5 61 93 28 06; email [sb.reporting@airbus.com](mailto:sb.reporting@airbus.com); at the applicable time specified in paragraph (l)(1) or (l)(2) of this AD. The report must include the inspection results and a description of any discrepancies found.

(1) If the inspection was done on or after the effective date of this AD: Submit the report within 90 days after the inspection.

(2) If the inspection was done before the effective date of this AD: Submit the report within 90 days after the effective date of this AD.

**(m) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraphs (g) through (j) of this AD, if those actions were performed before the effective date of this AD using

the service information specified in paragraphs (m)(1) through (m)(4) of this AD, which are not incorporated by reference in this AD.

(1) Airbus Mandatory Service Bulletin A330-32-3240, including Appendix 1, dated December 8, 2010 (for Model A330-200 series airplanes, Model A330-200 Freighter series airplanes, and Model A330-300 series airplanes).

(2) Airbus Mandatory Service Bulletin A330-32-3240, including Appendix 1, Revision 01, dated May 4, 2011 (for Model A330-200 series airplanes, Model A330-200 Freighter series airplanes, and Model A330-300 series airplanes).

(3) Airbus Mandatory Service Bulletin A340-32-4281, including Appendix 1, dated December 8, 2010 (for Airbus Model A340-200 series airplanes and Model A340-300 series airplanes).

(4) Airbus Mandatory Service Bulletin A340-32-5096, including Appendix 1, dated December 8, 2010 (for Model A340-541 airplanes and Model A340-642 airplanes).

**(n) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind

Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax

(425) 227-1149. Information may be e-mailed to:

[9-ANM-116-AMOC-REQUESTS@faa.gov](mailto:9-ANM-116-AMOC-REQUESTS@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(3) Reporting Requirements:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

**(o) Related Information**

Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2012-0053, dated March 30, 2012, and the service information specified in paragraphs (o)(1) through (o)(3) of this AD, for related information.

(1) Airbus Mandatory Service Bulletin A330-32-3240, Revision 02, including Appendices 01 and 02, dated December 2, 2011.

(2) Airbus Mandatory Service Bulletin A340-32-4281, Revision 01, including Appendices 01 and 02, dated December 2, 2011.

(3) Airbus Mandatory Service Bulletin A340-32-5096, Revision 01, including Appendices 01 and 02, dated December 2, 2011.

**(p) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Mandatory Service Bulletin A330-32-3240, Revision 02, including Appendices 01 and 02, dated December 2, 2011.

(ii) Airbus Mandatory Service Bulletin A340-32-4281, Revision 01, including Appendices 01 and 02, dated December 2, 2011.

(iii) Airbus Mandatory Service Bulletin A340-32-5096, Revision 01, including Appendices 01 and 02, dated December 2, 2011.

(3) For service information identified in this AD, contact Airbus SAS – Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on March 28, 2013.

Ali Bahrami,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2013-08047 Filed 04/09/2013 at 8:45 am; Publication Date: 04/10/2013]